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THE DILEMMA OF IMPLEMENTING CONTROLS: THE CASE OF MANAGERIAL ACCOUNTING*

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Abstract

Managerial accounting contains a technical theory of control. Whenever this technical theory of control is correctly implemented to deal with issues that are embarrassing or threatening, the players activate their personal-human theory of control in order to remain "in control". The correct implementation of the personal-human theory of control necessary inhibits the effective implementation of the technical theory and vice versa.

The purpose of managerial functional disciplines, of which accounting is one, is to help managers govern. Each functional discipline represents a theory about how to govern in order to master events over which managers are responsible. Each theory may be described as a theory of control.

All theories of control have two features. One is the theory as it is espoused. Espoused theories of control are usually idealized visions that are rarely achieved. They represent an aspiration to be approximated.

The espoused theory of accounting recommends the use of concepts, usually coordinated to numbers, that are intended to be objective. The use of the concepts are dictated by a set of rules that are defined by the professionals as rigorously as they can make them. Once formulated, the rules are intended to apply to all cases in which they are considered relevant. (Ijiri, 1975; Solomons, 1986; Sterling, 1979; Yu, 1976.)

Productive reasoning is at the heart of the espoused theory of accounting. Productive reasoning includes defining premises as clearly as possible and making inferences explicit. Conclusions should be tested (testable) with the toughest tests that are available to the profession at that time.

If we observe the practice of accounting, we find that these ideals are rarely fully achieved. There are, at least, two reasons for the gap between theory and practice. First it is unlikely that any theory of control can be formulated that is usable in practice that, ahead of time, is able to account for the full complexity and uniqueness of a given context. Given the present degree of sophistication of the discipline there will always be a requirement for gap-filling.

Second, accounting is often sold and defended as being objective and rigorous. Since this claim is likely to fall short in practice, a tension frequently develops between those who use the claim to defend accounting and those who use accounting but do not believe the claim. Often this results in conflicts whose discussion could lead the players to feel embarrassment or threat.

As we shall see below, most human beings activate a human theory of control to deal with embarrassment or threat. The dilemma is that this human theory of control is counterproductive to objectivity, rigor, tough testing of conclu-

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sions, that is, to productive reasoning. Practitioners often react by defining defensive routines to protect their practice. But the routines themselves may escalate the defensiveness. For example, in trying to deal with the espoused requirements of objectivity and the realities of conflict, practitioners may define rules that are "precisely imprecise" and "clearly vague" while at the same time denying not only the inherent ambiguity but, the fact that the ambiguity is designed. This may be an explanation for Hopwood's observation that accounting practice is positively invested in ambiguity and lacks the scientific, objective features in its espoused theory (Hopwood, forthcoming).

In this paper, I want to examine several dilemmas of implementing accounting. They are dilemmas because, I suggest, that the correct use of accounting ideas can lead to productive, *and at the same time*, counterproductive consequences.

EFFECTIVE IMPLEMENTATION

If productive reasoning is produced by implementing accounting principles then, not surprisingly, the first step in implementation is to teach the accounting principles that are relevant to problems at hand.

Implementation therefore often begins with a theory of instruction which assumes if humans beings learn the principles of accounting; if they understand them fully; if they wish to use them; and *if* they are permitted to use them, then they will go ahead and use them. As long as they use the ideas consistently with sound accounting principles, the consequences promised by accounting will result.

There are two consequences that follow from the enthusiastic application of this theory of instruction. The accountants can come to believe that effective implementation is largely implementing the theory of instruction just described. This belief assumes an organization relatively dedicated to following the accounting ideas, especially if it can be shown that they do solve the problems at hand. The assumption is probably valid as long as the effective use of accounting knowledge is not embarrassing or threatening. But, sound accounting knowledge can be embarrassing and threatening precisely when it is most needed that is, when the organization is in real trouble.

The second consequence of the theory of implementation described above, is that the accountants are held responsible for producing and advocating sound concepts and principles. As a result accountants understandably turn much of their attention inward into their discipline in order to make sure that their discipline is correct. This inward orientation, in turn, may also become an orientation for defense against the outsider.

Non-accountants see this self referential defense as signs that accountants are acting like techies. A techie is one who uses the technical ideas at his or her command to attempt to influence and control others. Techies sense of competence, confidence, and self esteem are wrapped up in accounting ideas and rules. The stronger the techie orientation the less likely is the individual going to deal competently with user disbelieve because the techie deals with disbelief by upping the level of accounting evidence and proof which may have triggered off the disbelief in the first place.

A strong techie orientation can make it difficult for accountants to "bend" their ideas without losing their validity in order to communicate to non-accountants. For example, metaphors may be useful to explain quantitative analyses. It takes a lot of skill and experience to take a precise quantitative analysis and communicate it in ways that users who may be threatenend by quantitative precision will listen.

Accountants, indeed most professionals, do not look forward to encounters where they are disbelieved or resisted. Such conditions lead to conflict with the potential for embarrassment or threat. As noted above, a techie response will tend to escalate the embarrassment and threat.

THE IMPLEMENTATION DILEMMA

We now come to the heart of the dilemma. In-

dividuals have human theories of how to remain in control when embarrassment and threat occur. To our surprise, this *theory* of control is the same across cultures, and regardless of age, sex, education, or wealth. The behavior that they use to implement the theory may vary. For example, all human beings that we have studied use the same theory of face saving. However, the actual behavior may vary widely (Argyris & Schon, 1974; Argyris, 1982, 1985).

Some features that do not vary are:

(1) The theory of control is primarily unilateral.

(2) The action strategies depend on "selling", "persuading", "fighting" designed to win and not to lose one's point.

(3) This results in the creation of a behavioral environment characterized by defensiveness, error escalation, self fulfilling prophecies, and self sealing thinking.

(4) Defensive reasoning predominates (i.e. premises are tacit, inferences are not made explicit, and, conclusions are not falsifiable).

(5) Threat or embarrassment are dealth with by striving to bypass them and by covering up the bypass. Social virtues of concern and caring are often defined to be consistent with being "diplomatic", "easing-in", and similar bypass actions.

There is a paradox in using a human theory of control that has these features. If I use a theory of control that is unilaterally controlling because I believe it is effective then the player at the other end must act in a dependent submissive mode if my unilateral dominant mode is to be implemented. The paradox is: in order for me to act effectively, I require others to use a theory of action that I consider ineffective.

These consequences make it more likely that the information produced will be distorted; that the players will be unaware of their personal responsibility for the distortion; while clearly aware of the other's responsibility. In short, human beings' theories-in-use (not the ones that they espouse) when dealing with embarrassment or threat, are anti-learning and over protective.

The reasoning embedded in the human theory of control described above may be called, defensive. The rules of defensive reasoning are, keep premises tacit, make inferences with covert logic, and subject conclusions to a private test; the test should be consistent with the logic used by the person reaching the conclusion. Such reasoning is contrary to productive reasoning. Yet both the accountant and the line manager will tend to use it. Ironically, defensive reasoning will be activated when it is least likely to be effective and most likely to inhibit problem solving.

Organizational defensive routines

Defensive reasoning is not formally sanctioned by organizations. As a result, human beings create organizational defensive routines that are consistent with their individual defensive routines. The defensive reasoning individuals use to defend themselves now becomes acceptable, if not required, by organizational practices and policies (Argyris, 1985).

Organizational defensive routines are any routine policies or actions that are intended to circumvent the experience of embarrassment or threat by bypassing the situations that may trigger these responses. Organizational defensive routines make it unlikely that the organization will address the factors that caused the embarrassment or threat in the first place. Organizational defensive routines are anti-learning and over-protective.

Organizational defensive routines differ from individual defensive routines in that they exist even though (1) individuals move in and out of the organization, (2) psychologically different individuals use them in the same ways, (3) the source of learning them is socialization, and (4) the trigger to use them is concern and being realistic rather than a personal anxiety (Argyris, 1985).

Mixed messages: a dominant organizational defensive routine

An example of a prominent defensive routine is mixed messages. Mixed messages contain meanings that are simultaneously ambiguous and clear, imprecise and precise.

Anyone who deals with mixed messages ex-

periences the dilemmas that are embedded in them. The designers know that designing a message to be clearly ambiguous requires skill and knowledge about the receiver. They know that to be both vague and clear is inconsistent. Furthermore, to be clearly vague is not only inconsistent, but is designed inconsistency. Because of the construction, the designer is vulnerable — unless, of course, the receiver does not question the inconsistency.

There are therefore four rules about designing and implementing mixed messages. They are:

1. Design a message that is inconsistent.
2. Act as if the message is not inconsistent.
3. Make the inconsistency in the message and the act that there is no inconsistency undiscussable.
4. Make the undiscussability of the undiscussable also undiscussable.

The strategies embedded in this logic are: when dealing with organizational defensive routines, be inconsistent, yet act as if you are not being inconsistent. Make the issues undiscussable and uninfluenceable, and act as if this is not the case. Thus the undiscussability and uninfluenceability become undiscussable.

Organizational defensive routines can lead people to feel helpless and cynical about changing them. This leads people to distance themselves from trying to engage the defensive routines in order to reduce them. As a result, organizational defensive routines not only become unmanageable (it is difficult to manage what is undiscussable), but they become the source of much distorted information. The distortion of the information is taken for granted because it is seen as necessary for the survival of the players as well as for the organization.

Adapting: organizational defensive routines

How does managerial accounting as a system of control ever work under the conditions described above? First, these counterproductive consequences occur primarily when the players are experiencing potential or actual embarrassment or threat. There is a large domain in managerial accounting practice where there is little disagreement and feelings of disempowerment. Second, where there are difficulties, individuals often strive to work out their differences, especially through upward delegation: take it to the boss and let him decide. If subordinates lose the fight they can maintain that they did their best and the superior is responsible.

Neither of these two strategies deals effectively with the double binds that actors experience when the accounting systems are used in accordance with best current practice yet they produce for the players varying degrees of embarrassment or threat. Under these conditions, organizational and individual defensive routines are activated by the players to protect themselves (Lawler & Rhode, 1976). Birnberg *et al.* (1983) identified six methods used by subordinates to distort accounting information. They are smoothing, biasing, focusing, gaming, filtering, and "illegal acts".

What is common about all these activities is that they bypass the causes of the threat and that they cover-up the bypass while it is being produced. These are the properties of organizational defensive routines. Hence, to deal with defensive behavior norms in the system, the players adapt by producing further defensive behavior. In doing so, the players subject themselves to further potential embarrassment or threat that arises if they are caught. After all, such actions violate formal organizational politics and espoused managerial stewardship. Defensive routines beget defensive routines.

To the extent they are undiscussable and their undiscussability is undiscussable, the defensive routines will be difficult to manage. Under these conditions not only subordinates but superiors may feel a sense of helplessness and cynicism about reducing them.

Adapting: reducing the potential embarrassment or threat

As I interpret the recent research by Merchant (1989) and Merchant & Manzoni (1988) it suggests that some superiors may be dealing with the problem by trying to reduce the likelihood of embarrassment and threat arising in the first place. The choice of strategy is partially influenced by the superiors' fundamental assump-

tions about their relationships with their subordinates and with the budgeting process. They seemed to behave as if (1) they had great difficulty in evaluating (profit center) managers' performance, (2) they believed that managers cannot be trusted to give fair evaluation of their performance, and (3) they felt ill-equipped to openly confront threatening issues (p. 2) (Manzoni, 1988). All these conditions are normally not discussable as they are occurring.

One way to bypass these problems is to design budgets that the players agree are "very likely to be achieved". In a study of 54 profit centers from 12 corporations the subordinates and superiors agreed that the budgets were designed to be achievable (e.g. subjective probability of 80 or 90% given that the management team exerts a high level of effort) (Merchant & Manzoni, 1988). Under these conditions the potential for embarrassment or threat are minimized.

However, there may be an unintended consequence leading to another dilemma. The dilemma is that success under these conditions may be self limiting. It is possible, for example, that setting goals is a bargaining process where the superior is ultimately in control. This is not surprising given the personal theory of control described above. The subordinates therefore participate within the limits (personal and organizational) set by the superior.

To the extent the superior is in control then the ownership or responsibility for setting the goals and the paths is ultimately the superior's. To the extent that the performance goals do not stretch old abilities or do not require new skills, successful performance is predictable as long as the subordinate works hard and there are no unforseen externalities. Under these conditions, subordinates may also feel very good about achieving the easily achievable performance targets and a great relief from pressure. But the success will not strengthen the individual's self-esteem and confidence in learning new abilities, taking risks, producing and successfully dealing with surprises. (Lewin *et al.*, 1944).

Bandura's theory of perceived self efficacy (Bandura 1986), leads to similar conclusions in the world of organizational management (Bandura, 1988; Wood & Bandura, 1989). Briefly, perceived self efficacy is the belief in one's capabilities to exercise control over events and to accomplish goals. Human beings with strong beliefs of self efficacy are often in, or seek situations, in which they focus on mastering tasks that are challenging, that are central to their needs, and that they have some non-trivial responsibility to figure out how to achieve. They are not depressed by error; they see it as an opportunity for learning. They persevere and are resilient in the face of difficulties.

As I interpreted the research on setting predictably achievable goals, the profit center managers are not likely to strengthen their belief in their self efficacy. Indeed, if these conditions become routine the individuals' self efficacy beliefs may be eroded or limited to aspirations that are easily achievable. Under these conditions individuals will tend to shy away from difficult tasks, seek goals with a level of aspiration that is similar to previous ones, be committed as long as there are rewards, give up quickly, and come to blame themselves or the environment for failure.

What difference does it make as long as the targets are achieved?

Individuals who succeed in achieving easily achievable budgets in the defensive world described above should report that they feel safe, secure, and in control. They should be observed to be dependent on and grateful toward their supervisor, to seek a world that is programmable so that it is easily manageable, to except that competence is equated with easily achievable, that a just world is one where objectives are easily achievable, where no surprises is a sign of credibility and trust. The same individuals should express concern and fear about developing objectives that stretch their minds (not their energy) that requires risk taking, that produce uncertainty.

What may be happening is this. In order for superiors to feel confident that (1) earnings can be predicted correctly, (2) overconsumption of resources will be reduced, (3) meddling into the players' space will be reduced, (4) harmful earnings management practice will be reduced, and (5) the probability of ensuring a competitive

compensation package will be increased (Merchant & Manzoni, pp. 16–22), they use strategies (like early achievable goals) that may simultaneously produce in subordinates feelings of fear of risk taking and stretching their capacities, fear of questioning the status quo.

Simons (1987) describes a different form of adaption in Johnson & Johnson. Compensation is separated from absolute output performance. Hence the managers are shielded from the variability in outcome due to uncertain environment. This encourages subordinates to make their efforts visible which, in turn, requires more knowledge by superiors than that required by simply rewarding performance on the bases of output. Simons' description suggests that Johnson & Johnson uses information as much, if not more so, for the purpose of learning than for control. Or, to put it another way, Johnson & Johnson sees control as an on-going iterative process and hence requires learning to go on continuously. This practice leads to a reduction of embarrassment and threat. It would be interesting to study if embarrassment or threat does occur and how they are handled by the players.

An incorrect theory of motivation

The argument embedded in the strategy of achievable budgets, fundamentally assumes that implementation will be more effective if individual goals and organizational goals are congruent. By defining budgets that, within reason, assure success then both the organization and the individual are well served. This theory of implementation stems from expectency theory: a theory of motivation popular in the psychological literature a decade ago (Lawler, 1973). The theory states that human beings will expand effort in a particular direction when they believe their actions will result in outcomes that they desire. This has led accountants to recommend goal congruence as the basis for motivating individuals to act consistently with the requirements of managerial central systems (Anthony, pp. 94–96).

Unfortunately the theory never included nor, to my knowledge was there any empirical research conducted, to explore the conditions that are at the heart of this analysis: actions that are simultaneously congruent *and* incongruent with organizational and individual needs.

For example, Jaworski & Young (1988) hypothesize that in governing behavior, the actors choose actions that achieve their "most favorable personal outcome regardless of the actions that the firms prefers" (p. 6). But our research suggests that choosing gaming behavior is often experienced as "most" *and* "least" favorable. "Most" refers to protecting one's self, "least" refers to having to do so and to cover it up. The choice is made because individuals believe they have no other choice (Argyris, 1985). The goal congruence theory, is not very helpful in advising management how to design congruence between individual and organizational goals where due to the layers of double binds, inner contradictions exist in each and between both.

There is a second feature of the current ideas on motivation that appears misleading. Accountants are aware that managerial accounting systems can be threatening because they evaluate managers' performance. (Horngren & Foster, p. 10.) The authors often counsel patience and education, persuasion, and intelligent interpretation (p. 159). These three activities should be put in the service of convincing subordinates that budgets are positive devices.

As I read such advice it contains the following logic:

(i) If accountants describe reality accurately.

(ii) If the description is objective (quantifiable) and testable.

(iii) If accountants communicate their descriptions accurately.

(iv) Then accountants have fulfilled a key feature of their stewardship.

But fulfilling this feature is not enough as long as line management finds accounting information threatening. How should accountants deal with this problem? As far as I can tell the primary advice is to repeat the logic above with the line manager. The accountant sits down with the line and persuades and convinces the line managers that the accounting information is good for them.

Unfortunately, the accounting text books do no describe in concrete detail what accountants should actually say and do. According to our research, it is highly likely that accountants will use a theory-in-use that is unilateral and coercive, and they will be unaware that this is the case. Line managers will react by using a similar theory-in-use. The result will be escalating misunderstanding usually in the name of honesty and integrity (Argyris & Schon, 1988). The only transcript that I was able to locate of a dialogue illustrates our prediction. According to the footnote by the authors, versions of the dialogue have been printed many times (Horngren & Foster, pp. 473–475).

In one of the more comprehensive text books on accounting (Horngren & Foster 1987) one may read:

(a) Budgeting systems change human behavior in ways sought by top management (p. 139).

(b) Budgets compel managers to look ahead. This forced planning is by far the greatest contribution of budgeting to management (p. 141).

(c) Budgets force executives to think (p. 148).

(d) Budgets (help) to remove unconscious bias (p. 142).

(e) Budgets (help) to search out weaknesses (p. 142).

Budgets change, compel, force, remove and search out. Strictly speaking budgets do not do these things. It is individuals who implement these actions. If the authors mean that accountants should use budgets to compel, force, etc. line management then they are recommending a strategy of implementation that will probably backfire. Such unilateral and coercive activity will activate, as we have seen, individual and organization defensive routines that are over-protective and anti-learning.

Human beings are capable of looking ahead, of planning, of searching for this biases, weaknesses and blindness. They are not likely to do so when the fundamental assumption is that they have to be forced or coerced to do so. The dilemma is how to impelement accounting practice in ways that change, looking ahead, thinking, removing unrecognized biases that are produced through internal commitment rather than the external commitment implicit in the statements above.

IMPLICATIONS FOR CORRECTIVE ACTION

The idea that implementation is enhanced by creating goal congruence; and that, in turn, by using appropriate monetary rewards is not likely to be relevant where the implementation of managerial controls is embarrassing or threatening to the players. The challenge under these conditions is less one of motivating individuals. It is more one of dealing with their automatic reactions to use skillfully a theory of action whose consequence is to produce defensive reactions, bypass a cover-up. It is also one of engaging organizational defensive routines that protect and exacerbate the individual defensive but highly skilled behavior.

In order to accomplish these consequences individuals will have to be taught a new theory-in-use, one that, at present, few have although many espouse.

Such a theory-in-use exists. It can be taught as a general theory of learning (individual and organizational) (Argyris & Schon, 1974, 1976; Argyris, 1982). Moreover, it appears that the most powerful way to teach the new theory-in-use is in conjunction with a technical (functional) discipline such as managerial accounting, strategy, or a human resources activity such as evaluating human performance in ways that lead to genuine pay for performance. The reason this is true, is that this behavioral theory, like all theories that underly the management disciplines, is a normative theory of how to achieve intended consequences. Most theories of human behavior are descriptive; their objective is to understand. They espouse that applicability is important. The theory-in-use however leaves much to be desired (Argyris, 1989).

This theory-in-use is pro-learning and against over protection. The new theory-in-use solves other dilemmas, namely being tough yet inquiry oriented; making compelling arguments yet subjecting them to test, evaluating performance yet

being confrontable. With these skills individuals can begin to deal with challenges such as accounting as a score keeping and evaluating function as well as instrument of coercion of managerial attention. To advise that it is possible to act as an interpreter of the technical features of the accounting system "and not be seen by line as an evaluator or as encroaching on line manager's decision making process" (Horngren & Foster, p. 10) is to suggest something that, in my opinion, is not possible. It will place accountants in a defensive position of denying something which they and line often experience as true. The skills and competencies that line and staff should be taught is how to deal openly with being evaluative and with encroaching on line management space.

Another example, is the predisposition of many accountants to see line management's predisposition to ignore valid feedback as a weakness on their part. A different interpretation is that this behavior, given the organizational defensive routines, is a sign of strength and skill that indeed does prevent features of the organization from blowing apart.

Focusing on organizational defenses

Organizational defensive routines are created by actions that bypass embarrassment or threat and cover-up that this is the case. The emphasis on bypass and cover-up has a distinct influence on what is considered to constitute a successful dealing with the problems that they create. For example, if gaming activity becomes public, management usually stops the gaming and sets new rules to reduce the likelihood that the gaming will continue. The rules could be to increase the rewards and punishments or, as in the examples described above, they could lead to a lowering of budget objectives so that they are easily achievable.

In none of the accounting literature cited above, is it recommended that the players should engage rather than bypass the causes of defensive routines themselves. For example, what causes the general managers to mistrust profit center managers? If budgets are made easily achievable because general managers seek to reduce the likelihood that profit center managers will act in ways that are detrimental to the company's interest, why not explore what leads the profit center managers to act in these counterproductive manners in the first place? Otherwise, the strategy of designing easily achievable objectives is itself a bypass and cover-up of a more fundamental problem.

Otley (1988) describes how information is systematically distorted as it goes to headquarters. He then writes, "... it seems surprising that better formal methods of dealing with (uncertainty) in budgetary control systems have not yet made" (p. 25). I asked Professor Otley what the likelihood is that representatives of headquarters and the relevant subordinates would explore face to face what leads the latter to distort the information and cover-up that they are doing so. He replied that the likelihood was very low indeed. Such a strategy would be rare.

The time has come, I suggest, that we go beyond describing the gaming, distorting, etc. and beyond trying to find ways to bypass the causes of the necessity for such behavior. It is time that practitioners attempt to engage the organizational defensive routines. It is time that researchers and practitioners join to design interventions to accomplish the engagement of organizational defensive routines.

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